ESRA Mission Assurance Project
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Mission assurance is critical in space missions
The ESRA mission is an example of a critical space mission
Solid rocket motors are used for the ESRA rocket
By adding resin, curative, an oxidizer, and a fuel we can create a solid rocket motor.
In the past, ESRA teams have recorded different results in different ambient conditions.
My project aimed to look at the effects of ambient temperature on solid motor performance.
To study this phenomena a temperature controlled box was constructed along with sub-scaled motors
Firing sub-scaled motors after being cyclically heat treated allows us to find trends.
A quantifiable relationship must be found from this project to make solid rocket motors more predictable
Acknowledgements

Thank you to the Oregon Space Grant Association for this opportunity

I would also like to thank the following for being awesome and such great help: Dr. Nancy Squires, Conner Flaherty, Adam Ragle, Austin Gulstrom, Travis Fujimoto, Devon Burson, Matt Hoeper, Breana Lopez, and Cole Haxton, you all are the best!
Questions?

I can try to answer them